

Name: \_\_\_\_\_

### at1110paper\_practice\_test (v17)

1. Expand the following expression into standard form.

$$(9x - 5)^2$$

$$81x^2 - 45x - 45x + 25$$

$$81x^2 - 90x + 25$$

2. Solve the equation.

$$(8x - 3)(7x + 2) = 0$$

$$x = \frac{3}{8} \quad x = \frac{-2}{7}$$

3. Expand the following expression into standard form.

$$(7x - 5)(7x + 5)$$

$$49x^2 + 35x - 35x - 25$$

$$49x^2 - 25$$

4. Factor the expression.

$$64x^2 - 49$$

$$(8x - 7)(8x + 7)$$

5. Solve the equation.

$$10x^2 - 71x + 49 = 3x^2 - 2x - 5$$

$$7x^2 - 69x + 54 = 0$$

$$(7x - 6)(x - 9) = 0$$

$$x = \frac{6}{7} \quad x = 9$$

6. Solve the equation with factoring by grouping.

$$20x^2 + 8x - 15x - 6 = 0$$

$$(4x - 3)(5x + 2) = 0$$

$$x = \frac{3}{4} \quad x = -\frac{2}{5}$$

7. Expand the following expression into standard form.

$$(3x - 2)(7x - 5)$$

$$21x^2 - 15x - 14x + 10$$

$$21x^2 - 29x + 10$$

8. Factor the expression.

$$x^2 - 6x + 8$$

$$(x - 4)(x - 2)$$